

# BROWNTAIL MOTH

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**Maine Forest Service**

# Browntail Moth

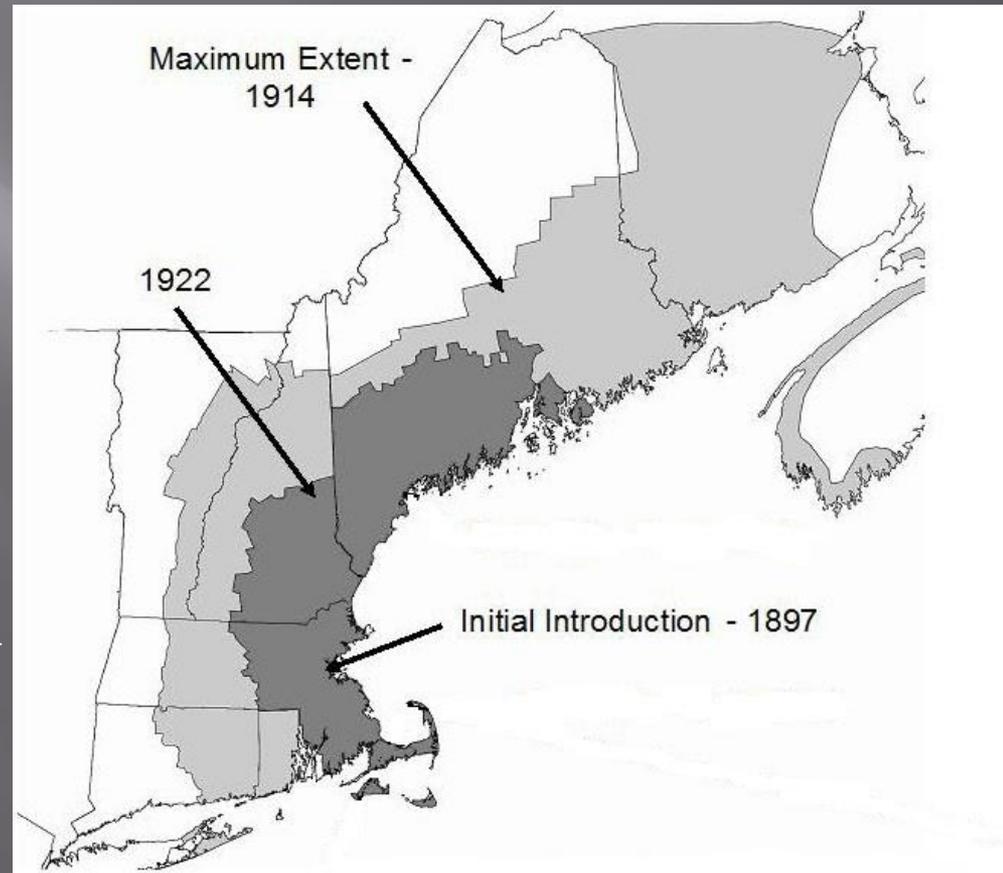
- ▣ Caterpillars toxic hairs cause:
  - Rash
  - Respiratory distress
- ▣ Caterpillar feeding causes
  - branch dieback
  - tree mortality



# Browntail Moth – History

## *Euproctis chrysorrhoea*

- ▣ First established in Somerville, Massachusetts in 1897
- ▣ By 1914 found from Vermont and Connecticut to New Brunswick and Nova Scotia



Browntail Moth Expansion by Year

# Browntail Moth – History

- ❑ Extensive efforts were made during the early 1900's to control BTM:
- ❑ Winter webs clipped and burned by the 10,000's
- ❑ Spray projects initiated
- ❑ Apple trees cut down
- ❑ A federal quarantine imposed
- ❑ A huge biological control program instituted
  - Parasatoids & predators released



Pupils of Farm School, Thompson's Island, destroying winter webs of brown-tail moth, Dec., 1902.  
From photo kindly loaned by Chas. Bradley, Supt.

# Browntail Moth – History

In 1920's population collapsed

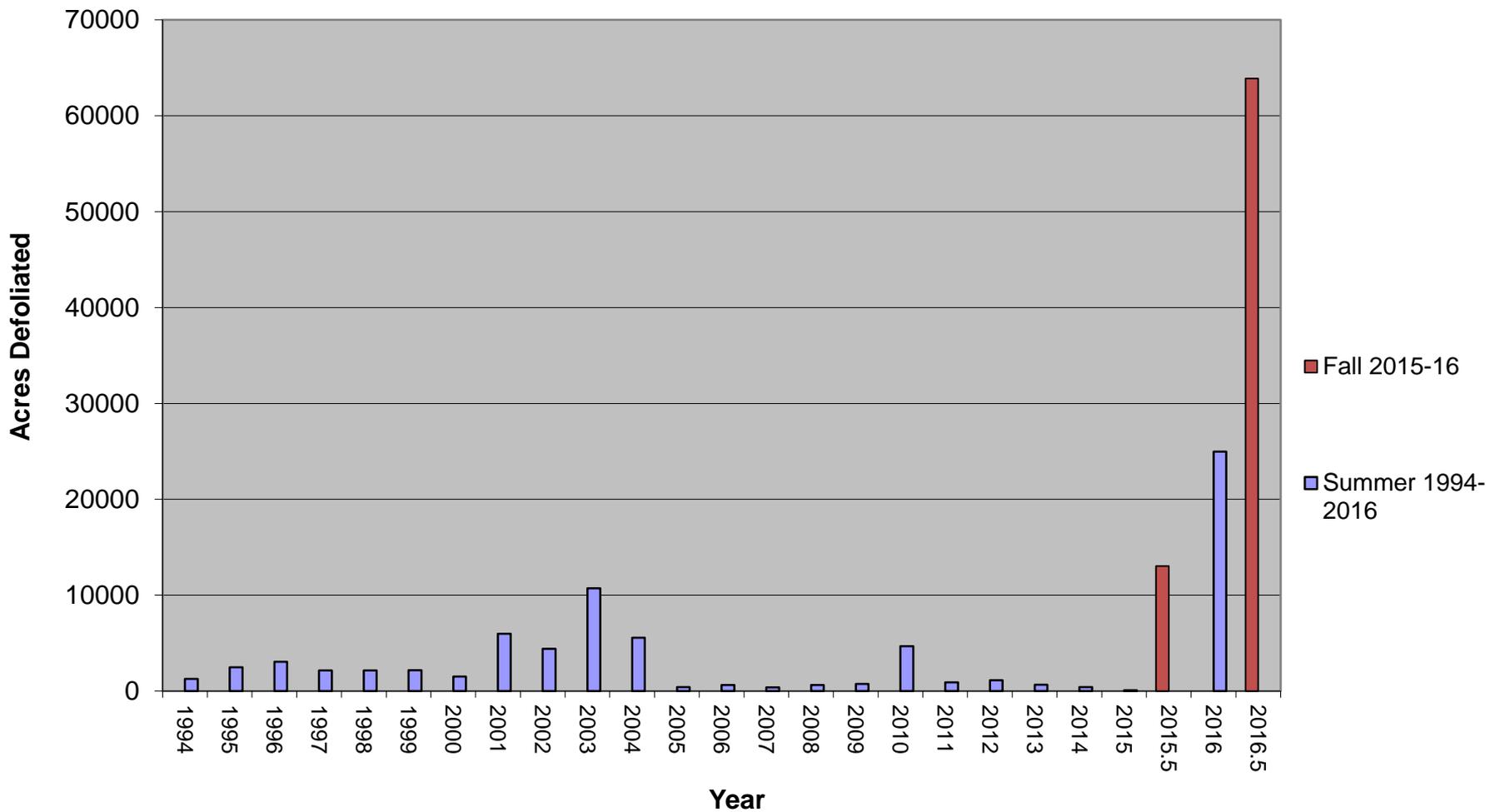
Retreated to:

- ▣ a few islands in Casco Bay, ME
- ▣ Cape Cod, MA
  
- ▣ Periodic outbreaks over next 60 years
  
- ▣ Returned in late 1980's

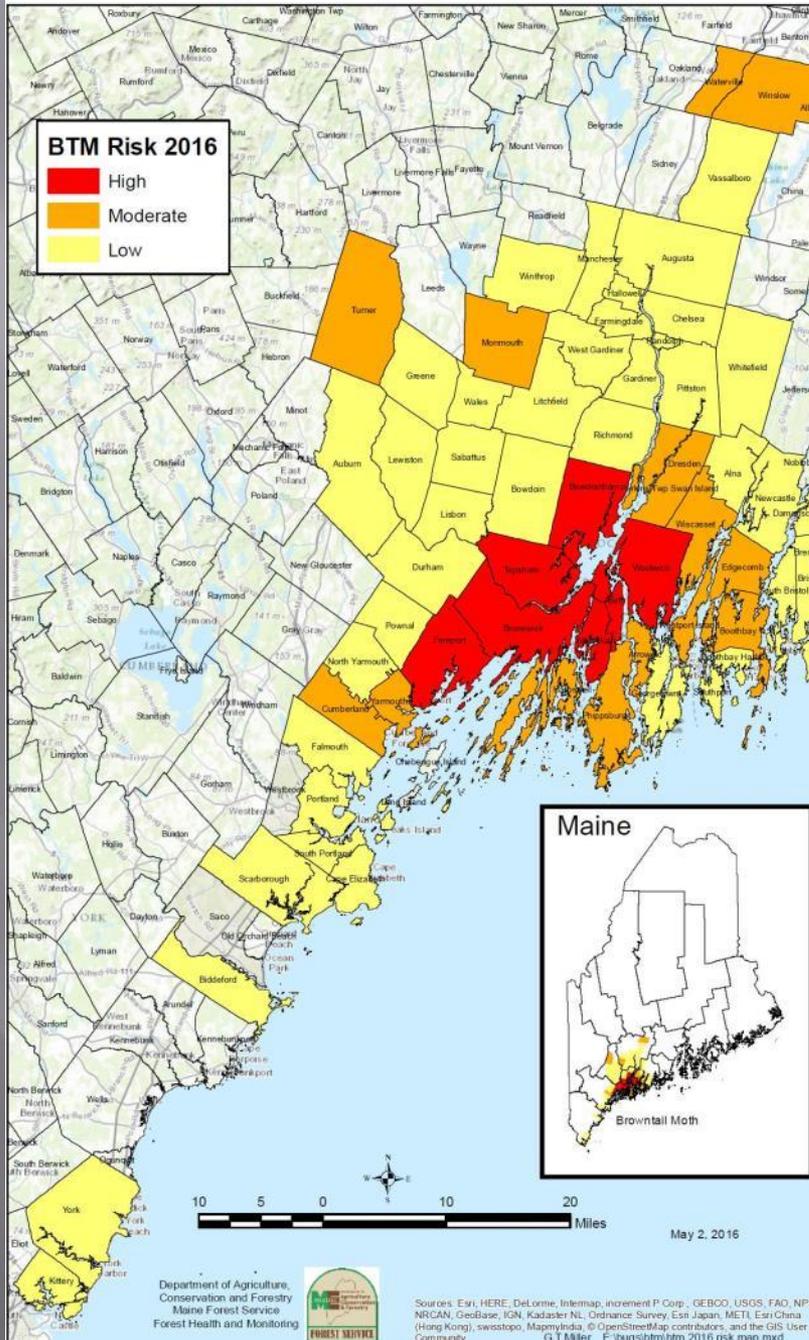
# Browntail Moth

- ▣ Population surged in 2015
- ▣ Exploded in 2016
- ▣ Expect larger footprint across Maine in 2017
- ▣ Moths found from Millinocket to Topsfield down through Exeter and Skowhegan to Elliot

# Browntail Moth Defoliation in Maine



# Browntail Moth Risk - 2016



April-June  
Larvae feeding  
LOTS of HAIRS



July  
Cocoons  
LOTS of HAIRS  
in cocoons

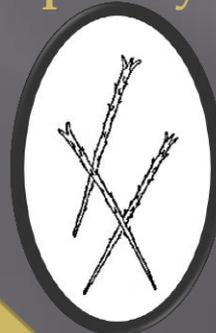


## Browntail Moth Life Cycle

September-April  
Larvae in webs  
on tips of  
branches



Hairs toxic up to 3 years



July-August  
Adults & Eggs



August-September  
Tiny larvae skeletonize  
leaves & form winter webs



# Browntail Moth

## ▣ Public Health

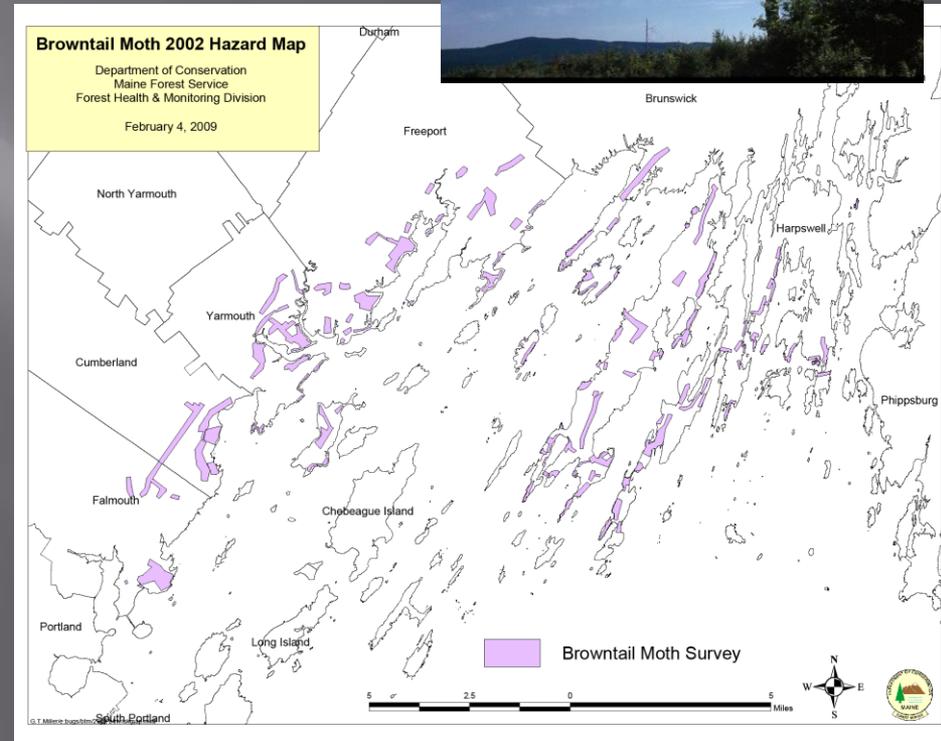
- In 1997 legislation passed to allow municipalities to control for BTM if declared a public health nuisance by Bureau of Health Director
- This allows municipalities to conduct control projects

## ▣ Protection for lobsters

- Lobstermen became concerned about BTM spraying
- Board of Pesticide Control regulation passed in 2008 restricts BTM spray near coastal waters

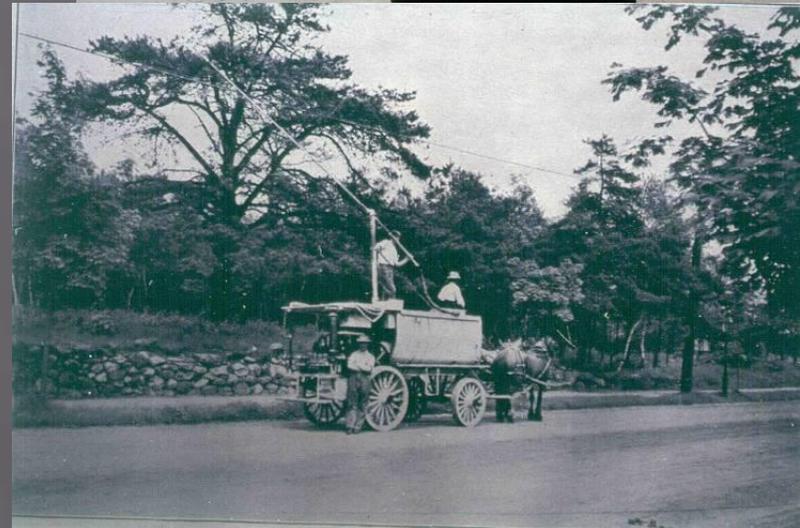
# Browntail Moth

- ▣ Municipal aerial control projects 1992-2002
  - Peak acreage of 5,120 A. sprayed in 1999
  - Casco Bay Region from Portland to Harpswell
  - Insect Growth Regulators used
  - B.t. – a bacterial insecticide formulation not as effective
  - Became highly controversial
- ▣ Private ground projects continue



# Browntail Moth – Control

- ❑ Low winter webs can be clipped and burned
- ❑ Chemical control in the spring – BEFORE the end of May
  - Later spraying does not reduce exposure to hairs
  - Hire a licensed pesticide applicator
- ❑ More effective if control is widespread



# Browntail Moth

- ▣ Hairs are on caterpillars, cast skins, cocoons
  - Microscopic
  - Blow around
  - Stay toxic for 1-3 years
- ▣ Cold winter temperatures do NOT kill browntails
- ▣ Wet, cool springs when populations are high allow diseases to kill caterpillars

A photograph of the Vermont State Capitol building, a large white neoclassical structure with a prominent green dome, situated on a hill. The building is surrounded by trees, some of which are bare, suggesting a late autumn or winter setting. In the foreground, a deer stands in a grassy field, looking towards the camera. The word "Questions?" is overlaid in a large, black, serif font across the center of the image.

Questions?